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Version With Markings To Show Changes Made

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In The Specification:

[0040] Each information-bearing optical signal produced by an optical transmitter constitutes a channel in optical system 10. In a WDM system, each channel is generally associated with a unique wavelength. As depicted in FIG. 1, six optical transponders 20₁-20₆ are provided to create a six-channel wavelength division multiplexed optical communication system along transmission path 40₁ and six optical transponders 60₁-60₆ are provided to create a six-channel wavelength division multiplexed optical communication system along transmission path 40₂. The optical transmitters located within transponders 20₁-20₆ operate at channel wavelengths of $[@_1-@_6,] \underline{\lambda_1-\lambda_6}$, respectively. These optical signal channels are output from transponders 20₁-20₆ and are brought together in optical switch 30₁ for conveyance to optical waveguide 40₁ via output port 26₁ in the form of a multiplexed optical signal. Optical switch 30₁ has six input ports that are optically coupled to the six transponders 20₁-20₆ through optical waveguides 22₁-22₆. Likewise, the optical transmitters located within transponders 60₁-60₆ also operate at channel wavelengths of $[@_1-@_6,] \frac{\lambda_1-\lambda_6}{2}$ respectively. These optical signal channels are output from transponders 60₁-60₆ and are brought together in optical switch 32₂ for conveyance to optical waveguide 40₂ via output port 26₂. Optical transmission path 40₁ is typically an optical waveguide and is the principal transmission medium for the optical communication system. While the optical waveguide is generally selected from single-mode optical, any optical waveguiding medium which is capable of transporting multiple optical wavelengths can be employed as waveguide 401 in optical system 10. Similar to optical switch 301, optical switch 322 provides a multiplexed optical signal along optical transmission path 40₂. Following transmission and amplification of the multiplexed optical signals along waveguides

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40₁ and 40₂, each channel must be demultiplexed and routed to the receiver located in the transponder designated for the particular optical signal channel.

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